Public reporting burden for this collection of information is estimated to average 1 hour per response, including the estimate or any other sepect of this collection of information, including suggestions for reducing this burden, to We paperwork reduction project (0704-0188) Washington, DC 20503	time for reviewing instructions, eserching existing de achington Headquarters Services, Directorate for Infor	ta sources, gathering and maintaining the data needed, and comp mation Operations and Reports, 1215 Jeffsrson Davis Highway, S	lobing and reviewing the collection of information. Send comments reparting this burden- uite 1204, Arington, VA 22202-4302, and to the office of management and budget,
1. AGENCY USE ONLY (LEAVE BLANK)	2. REPORT DATE APR 2010	3. REPORT TYPE AND DATE	ES COVERED
4. TITLE AND SUBTITLE		5. FUNDING NUMBERS	
Transforming the Surface Warfare Officer Curriculum	r Training		
6. AUTHOR(S) Marc A. Drage, LCDR, USN			
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)		8. PERFORMING ORGANIZA	TION REPORT NUMBER
UNITED STATES MARINE CORPS COMMAND AND STAFF COLLEGE MARINE CORPS UNIVERSITY 2076 SOUTH STREET MARINE CORPS COMBAT DEVELOPMENT COMMAND QUANTICO, VIRGINIA 22134-5068			
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)		10. SPONSORING/MONITORING AGENCY REPORT NUMBER:	
N/A			
11. SUPPLEMENTARY NOTES The views express policy or position of the Department of Do		overnment.	do not reflect the official
Approved for public release; distribution is unlimited.		12B. DISTRIBUTION CODE	
Since 1970, Surface Warfare Officers Sch commissioned Division Officers in the U. streamlined and transitioned to a compute Division Officers face now with no format commissioning source to the operational funmerous leadership challenges. U.S. Nav classroom instruction and are now re-implementation.	S. Navy. In January r-based training curred classroom, simulated leet, SWO Division by leaders are witness	2003, the SWOS Division of the	on Officer Course was nines the effects that new ng. Sent directly from ly-taught SWOs are now facing e to the elimination of the
14. SUBJECT TERMS (KEY WORDS ON WHICH TO PERFORM SEARCH) Surface Warfare Division Officer, SWOS		14. NUMBER OF PAGES: 28	
		16. PRICE CODE: N/A	
17. SECURITY CLASSIFICATION OF REPORT	18. SECURITY CLASSIFICATION OF THIS PAGE:	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT
UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	
	1		

FORM APPROVED - - - OMB NO. 0704-0188

REPORT DOCUMENTATION PAGE

United States Marine Corps Command and Staff College Marine Corps University 2076 South Street Marine Corps Combat Development Command Quantico, Virginia 22134-5068

MASTER OF MILITARY STUDIES

Transforming the Surface Warfare Officer Training Curriculum

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF MILITARY STUDIES

Marc A. Drage, Lieutenant Commander, USN

AY 09-10

Mentor and Oral Defense Committee Member: Dr. Adam Cobb, Ph.D.
Approved:
Date: 4/21/20/0
Oral Defense Committee Member: CDR Heidi Agle, USN
Approved: The con, un
Date: 29 410K, 2010

DISCLAIMER

THE OPINIONS AND CONCLUSIONS EXPRESSED HEREIN ARE THOSE OF THE INDIVIDUAL STUDENT AUTHOR AND DO NOT NECESSARILY REPRESENT THE VIEWS OF EITHER THE MARINE CORPS COMMAND AND STAFF COLLEGE OR ANY OTHER GOVERNMENTAL AGENCY. REFERENCES TO THIS STUDY SHOULD INCLUDE THE FOREGOING STATEMENT.

QUOTATION FROM, ABSTRACTION FROM, OR REPORDUCTION OF ALL OR ANY PART OF THIS DOCUMENT IS PERMITTED PROVIDED PROPER ACKNOWLEDGEMENT IS MADE.

PREFACE

The origin of thought for this thesis began during a shore duty tour at the Fleet Combat Training Center, Atlantic in late 2003. My interest, as a professional Surface Warfare Officer (SWO), was piqued when the Navy announced that it was transforming the introductory education process of newly commissioned Ensigns destined for designation as SWOs. The tasks, in my mind, of current mid-grade SWOs would be greatly intensified. The burden of educating and guiding new officers with no initial training would now rest on their experienced Chief Petty Officers and their senior SWO Department Heads. As I thought towards my future operational tour as a Department Head at sea, I realized I would not only have to conduct my job flawlessly, but would now have to worry about having a potential SWO working for me in a lessened capacity. That is, a lessened capacity, because he/she would have no formal education in a job they would now be thrown into and is wholly responsible for learning on their own and now guided by qualified SWOs aboard the ships. My hope is that this treatise might contribute to furthering the dialogue on how to meet the unprecedented leadership challenges that surface warfare professionals currently and will continue to face in the future.

TABLE OF CONTENTS

- I. INTRODUCTION
 - A. OBJECTIVE
 - B. BACKGROUND
- II. CLASSIC SWOSDOC SYSTEM
 - A.ELIMINATION OF SWOS DIVISION OFFICER COURSE
 - B. OFFICER COMMISSIONING SOURCES
 - C. THE NEW SURFACE WARFARE OFFICER'S SCHOOL
 - D. PERSONNEL QUALIFICATION STANDARDS
 - E. COMPUTER BASED LEARNING
- III. RESEARCH METHODOLOGY
 - A. DATA BASE
 - **B. PROCEDURE**
- IV. RESULTS & DISCUSSION
- V. RECOMMENDATIONS AND CONCLUSIONS
 - A. CONCLUSIONS
 - **B. SUMMARY**

LIST OF REFERENCES

I. INTRODUCTION

Surface Warfare Officers' (SWO) primary functions are the operation of U.S. Navy ships and the supervision of the multitudes of shipboard systems. There are currently three commissioning paths for SWOs. These include the U.S. Naval Academy (USNA) in Annapolis, Maryland, Navy Reserve Officer Training Corps (NROTC) units (72 major U.S. units), and Officer Candidate School (OCS) in Newport, Rhode Island. Once commissioned through any of these institutions prior to January 2003, a designated SWO Ensign had been assigned to Surface Warfare Officer School Command (SWOSCOLCOM) for Surface Warfare Officer School Division Officer Course (SWOSDOC). This enrollment included an intense six month-long education curriculum consisting of fundamental surface warfare topics. In January 2003 the U.S. Navy implemented changes to the traditional training and education structure of its SWOs. These changes included elimination of SWOSDOC and introduced self-paced, computerbased training (CBT). As of 2003, commissioned Division Officers (DIVO) report directly to first tour operational assignments in the fleet. Upon commissioning, DIVOs are issued a set of six CD- ROMs that involve basic topics: Engineering, Combat Systems, Navigation, and Administration. This twenty-one module series of CD ROMs is titled SWOS-at-Sea. New Division Officers are required to complete the training modules (self-paced) during their qualification processes aboard ships.

This study will examine the effect of the transformation in training of U.S. Naval Surface Warfare Officers and their performance in the fleet. It will assess and compare the training of SWOs at SWOSDOC prior to January 2003 (classroom SWOs) and from training of SWOs under the new curriculum (CBT SWOs). The scope of this paper is to compare the training practices and their effects on SWOs in the fleet. The goal is to evaluate the effects of SWO performance in the fleet due to the curriculum changes. The assessment is generated from interviews and literature from SWOs of various ship types and commands in different phases of their careers. Additionally, the assessment will consider ship handling accidents of U. S. Navy surface warships and how they are related to the caliber of training received by SWOs trained under either system.

BACKGROUND

Surface Warfare Officer School Command (SWOSCOLCOM) was established in 1970 in Newport, RI. It remains the educational institution for courses ranging from the Department Head Course and Tactical Action Officer Course to the senior Prospective Commanding Officer Course (PCO). It no longer teaches the Division Officer Course. The command's mission is to provide a continuum of professional education and training in support of Surface Navy requirements that prepares officers to serve at sea. Much like an aviator is trained in the procedures of flying an aircraft, SWOs are trained in the procedures of ship handling and navigation. As noted in the Professional Core Competencies (PCC) Manual, which is an appendix in the Naval Officer's Guide, "An officer, upon commissioning, shall have had a basic knowledge of the naval profession and have the basic fundamental skills in order to enhance moral, mental, and physical development." SWOSCOLCOM's goal is to reinforce these foundations. As SWOs' careers progress, they are frequently assigned to SWOSCOLCOM between operational

tours for advanced education in surface warfare tactics, techniques, and procedures.

While assigned to SWOSCOLCOM for a course of instruction, students are assigned ship handling simulator opportunities as part of each course curricula. Robust, full-mission bridge simulators provide students with educational opportunities to experience handling different types of U.S. Navy ships. The simulators' software can be configured for different platforms of ship and be utilized for varying scenarios. These scenarios can be uploaded to meet a myriad of situations such as navigation in restricted waters and underway replenishment. The ship handling simulation emphasizes the vast differences in each platform's handling capabilities. Though no virtual simulator will replace the actual experience of standing watch as Officer of the Deck or Conning Officer in any ship, the simulator keeps officers proficient in ship handling procedures during advanced study while away from an operational tour aboard a ship. Scheduled simulator times in Newport are limited due to the high demand.

THE CLASSIC SWOSDOC SYSTEM

From 1970 to 2003, SWOSDOC consisted of a twenty-three week curriculum of classroom instruction by experienced and highly qualified SWOs. Additionally, instructors with differing Navy occupational codes added to the diversity of the instructional staff. Over the duration of the course, students were also instructed through laboratories and simulators. A stringent curriculum, SWOSDOC covered an array of topics that included Leadership, Engineering, Weapons Systems, Ship Handling, Rules of the Road, and Task Organization Structures. Additionally, students were introduced to Staff Planning, Operational Security, Damage Control, Firefighting, Message Drafting,

and Administrative Operations in Maintenance and Material Management System (3-M). Portions of Personnel Qualification Standards (PQS) were also satisfied through SWOSDOC. Sectioned into three categories, SWOSDOC satisfied requirements for the Fundamentals and Systems portions. SWOs were required to satisfy the third portion of PQS during the qualification process in their first operational tours. Completion of the PQS was prerequisite to qualification in particular watch stations and before final SWO qualification.

A well-rounded course curriculum provided officers with the necessary preparation for entering the U.S. Naval fleet for the first time. Upon completion of this training, officers would either report to their assignments in the fleet or continue in a specialized school, depending on their assigned billet. If an officer was billeted in a position that required additional training, that additional school was completed prior to reporting to the fleet. SWOSDOC laid a solid foundation for officers in becoming professional mariners.

Based upon budget concerns in fiscal year 2003, the Navy made the decision to streamline SWOSDOC. Pressures grew to justify and reduce training costs.

Consolidation of occupations and expanded use of training technologies were key recommendations of a 1997 RAND Corporation research study, which examined possibilities of moving military training such as SWOSDOC to on-the-job training (OJT).³ "To reduce costs associated with [permanent] change of station (PCS) moves, give Commanding Officer's more influence and control over training, and decrease the time needed to reach the SWO qualification, the new system was introduced in January 2003."⁴ A new era of training began, but not without criticism.

ELIMINATION OF DIVISION OFFICER COURSE

The navy's adoption of the key recommendations of the RAND study created a 'transformation' of officer training. The keystone concept was the elimination of schoolhouse training and the introduction of CBT (maintaining the same subject framework). The objectives of CBT are for SWOs to learn at their own pace with practicum, modules, and tests relevant to everyday shipboard operations. Officers are now required to study these modules on their own time with sometimes little mentorship.

The guidelines of the new system require officers to report directly to the operational fleet after commissioning. CBT SWOs have to get accustomed to shipboard life without having training. While onboard, in addition to CBT and OJT, SWOs have to complete Personnel Qualification Standards (PQS) for watch stations to include Combat Information Center Watch Officer (CICWO), and other pre-requisite basic shipboard qualifications. Simultaneously, they are assigned as a leader of a shipboard division of sailors with little background in leadership skills. There are times an Ensign has a mentor to guide the initial assimilation as a Division Officer and shipboard watch stander. Other times, Ensigns are left to their own devices on how to adjust to their new positions as a leader. As a practical result of the change in curriculum, the training of SWOs ultimately becomes the responsibility of the unit to which they are assigned.

The ultimate career milestone of a SWO is to command a U.S. Navy surface ship at sea. With the reconfiguration of SWOSDOC and the initiative of SWOs to learn utilizing the self-paced curriculum, it is becoming more challenging to mold them into future commanders at sea. Based on command climate, some units have the compassion,

time, and dedication to mentor and train aspiring SWO Ensigns, other units do not.

Additionally, under the new program guidelines, CBT SWOs are required to attend a three-week post-Officer of the Deck qualification "finishing course." Met with mixed results by many skeptics and advocates, CBT SWOs, once complete with the SWOS at Sea CD ROM and PQS requirements, have to travel back to Newport for this course. As CAPT Davis, a former Commander of two afloat tours, states, "although there is probably little room for discussion on the topic, it is worth considering that the class may be more beneficial if it were taught before junior officers get to their ships instead of on the verge of earning final SWO qualification."

COMMISSIONING SOURCES

As stated above, commissioning sources widely vary in their methods of training officers. Officers can gain commissions through one of three programs. The knowledge and experience levels acquired through those programs can also vary, having an effect on officer aptitude. A USNA graduate that has been under the tutelage of naval officers for four years has an advantage over an OCS graduate that has been under the tutelage of a Drill Instructor for only thirteen weeks. NROTC graduates' knowledge levels and leadership experiences also vary greatly.

First, consider the USNA graduate. From freshman year until graduation, the curriculum continuously involves leadership. A moral framework is built that consists of honor, courage, and commitment through all academic and personal endeavors. "The professional classroom studies are backed by many hours of practical experience in

leadership and naval operations, including assignments with Navy and Marine Corps units." In addition to four years of leadership education, USNA graduates also enjoy the advantage of ship handling and navigational experience. As part of its curriculum, the USNA utilizes "18 Yard Patrol (YP) craft to give all midshipmen practical training afloat. They are used in several professional courses and in two week summer cruises." "YPs are used for training and research by the U.S. Navy. They are arranged and fitted with navigational equipment normally associated with larger ships." USNA midshipmen utilize actual equipment to foster professional maritime skills, not just an introduction to ship handling and navigation in a simulator. Also part of the USNA curriculum is practical application and comprehension of nautical charts.

Second, examine the NROTC graduate. The first year of college involves leadership education at a level well below that of the USNA midshipman.

"The NROTC unit at the Georgia Institute of Technology conducts INFORM [Indoctrination For Midshipmen] beginning freshman year in the NROTC program. This program is held during the week immediately preceding the start of fall semester classes. The scope of the program includes military instruction and drill, issuance and instruction of the proper wear of uniforms, lectures and familiarization on military customs, courtesies and laws, and introduction to the NROTC staff. The program is organized and run each year by NROTC Battalions of Midshipmen from both the Georgia Tech and Morehouse College Battalions. This type of peer training enables new midshipmen to emulate the military examples set by the senior class. The training program is NOT a mini-boot camp

and is strictly voluntary."9

Contrary to USNA, colleges and universities that are home to NROTC units, have differing regulations that can be manipulated by that institute's administration, as evident by "strictly voluntary" programs.

NROTC Midshipmen have incredibly little practical ship handling experience.

During NROTC units' sophomore and junior years, Midshipmen are assigned only two weeks during summer onboard U.S. Navy ships for indoctrination. Depending on the assigned ship's operational schedule, the Midshipmen may not get a chance to experience underway operations. Unlike USNA midshipmen, Yard Patrol craft are not available to NROTC units for use.

Lastly, consider the OCS graduate. OCS was relocated in 2007 from Pensacola, Florida to Newport, Rhode Island. Since 2005, YPs are no longer available for OCS. From 1989 to 2005 while in Pensacola, OCS had two YPs for training use, an integral asset of the curriculum. OCS Candidates, possibly having just graduated from a college or university under no military obligation, endure twelve weeks of boot camp style training. The curriculum in what can be gained in twelve weeks of training is minimal compared to that of a USNA graduate with four full years of leadership training. "The curriculum demands a high level of academic prowess, concentrating on memorization of military knowledge, military inspections, close order drill, and academic courses." Academic courses include Seamanship, but do not involve practical application aboard vessels. Variations are evident in review of all three commissioning programs.

Many *United States Naval Institute Proceedings* articles lend favor to SWOSDOC being a leveler. No matter how an officer was commissioned, the Division Officer Course provided a necessary fundamental framework in maritime skill. "The course [SWOSDOC] was positioned to help level the playing field for new officers, regardless of commissioning source, and could have played the pivotal role in rapidly developing an operational/warrior mindset."

CRITICISM AND REVIEW

The transformation in training in SWOSDOC was met with much criticism both positive and negative. This criticism was evident well before and continues after the curriculum change. Resistant to the innovations, classroom SWOs envisioned Ensigns coming aboard ships garnering little knowledge of neither basic fundamental leadership nor fleet operations. CAPT Stephen Davis stated in a Proceedings article, "No other first-rate Navy in the world pushes newly commissioned officers out the door and directly to combatants without the benefit of formal training or underway familiarization." CAPT Kevin Eyer identified one advantage stating, "Millions [of dollars] would be saved annually by diverting responsibility for training new Surface Warfare Candidates from a residential school program to the ship's Commanding Officer." Initial savings may have been the answer, but monetary savings do not equal benefit. The savings may not be worth the risk of decline in fundamental skill of officers coming to the fleet with no formal maritime education.

CAPT Eyer's criticisms, in the same Proceedings article, shift as he identifies the inefficient use of navigational and bridge tools by CBT SWOs. He states, "For complex

evolutions, like mooring to a buoy, towing, division tactics, or helo operations while in formation, a Commanding Officer is no longer able to act as a removed, above-the-fray safety observer. Instead, he has to become closely and intimately involved in solving any problems. He becomes very much like the Officer of the Deck, himself." Again, saving money by not sending officers to school in the beginning of their careers simply shifts the cost elsewhere, like a cost burden upon the ship's Captain and crew.

A CBT SWO, Lieutenant Padraic McDermott, advocates that the new system is smarter. "The new system is strong and much closer to the right answer than the [twenty-three week] SWOSDOC. New division officers are well prepared for their jobs." It is assumed that the commands, to which these CBT SWOs report, already have a training program established to further their SWO progression. Lieutenant McDermott undermines his argument when he further states that this is not always the case aboard each ship. Additionally, he claims that "[Division Officers] will also not be educated in the division-management skills they will be expected to acquire, such as maintenance, the supply system, and personnel matters." 17

There is no substantial training regimen to support the new CBT training program, nor is there a Chief of Naval Education and Training (CNET) mandate for a universal standard of instruction for SWOS at Sea. There are ships that do not incorporate further training outside of required PQS. Each ship may create its own Division Officer schooling and tailor it to the specifics of the ship. For example, one ship instituted "Surface Warfare University" where, "for eight weeks during each summer, newly commissioned officers participated in a series of lectures, discussions,

and staff rides dedicated to getting them started on the right foot. The curriculum was focused on critical thinking, tactical relevance, teambuilding, and developing warriors as opposed to checklist slaves or administrators."¹⁸

Based on interviews with two Lieutenant Commanders (LCDR) who recently completed Department Head tours aboard different ships, the resounding sentiment is that a mandate is necessary for the new training program. One of them, stationed aboard a guided-missile destroyer in San Diego, said, "[my unit] does not have a baseline for the training of CBT SWOs. It [is] up to the officers and Chief Petty Officers to teach them everything!" The remarks of another LCDR of similar experience on a Norfolk-based amphibious ship were similar. "I presume that once Big Navy has conducted their final analysis on the elimination of SWOSDOC and assessed the atrocities it inflicted upon the SWO Navy, they will install the [DIVO] course again in Newport." Based on a conversation with numerous officers under the new CBT program, CAPT Davis stated, "[the officers] believe it was given to them as a less expensive alternative to a viable formal training curriculum." 21

In 2008, Afloat Training Groups, Atlantic and Pacific, were ordered to formulate a new introductory class in fleet concentration areas. Commander of Naval Surface Forces (COMNAVSURFOR), Vice Admiral Curtis reassessed the elimination of SWOSDOC and gauged the performance of ships. Based on poorly performing units during major inspections, COMNAVSURFOR directed the implementation of a new course of instruction to CBT SWOs. This course, called "SWOS Intro," was designed to help give new Division Officers a leg up early in their careers. Instead of spending six

months in Newport, students spend four weeks in classrooms in their homeports learning about their new profession."²² The course focuses on fundamental skills for division officers including basic preventive maintenance, watch standing and damage control. Training group officers will ensure students will train on the same class of ship [to which] they'll be assigned."²³

This reassessment of performance of CBT SWOs by senior Naval Officers has sparked a reconsideration of the current program that reflects the necessity to revert back to providing SWOs an educational foundation before entering the fleet. As assessments continue and new schools are established in fleet concentration areas, the original cost-cutting reason for the elimination of SWOSDOC in Newport is becoming irrelevant. To eliminate one course in one concentrated area like Newport, there is not much logic behind establishing three or more courses in fleet concentration areas.

NECESSITY AND DEMAND FOR SIMULATORS

Compared to an aviator who spends up to two full years in a classroom and an aircraft simulator and actual training aircraft, some similarities and contradictions can be observed. Logical reasoning shows that if an aviator requires up to two years of actual training before given a certification to fly an aircraft, then a SWO would require some tangible number of months of simulator time and classroom lecture before given the certification to operate a billion dollar plus warship with crews in excess of one hundred personnel. Many classroom SWOs believe that training aboard an actual vessel is irreplaceable. "Certainly nothing can replace ship handling at sea, especially in situations like underway replenishment or plane guard duties, skills in which all Naval Officers

must be proficient. But greater training is needed, and for this we need more simulation devices."²⁴

As a comparison of the development of officers from commissioning sources other than the USNA, many Commanding Officers observe that YPs are integral in ship handling skill foundations. "The shift of the [YP] craft to the Naval Academy had a negative impact on the development of officers from other commissioning sources. During my command tours, it has been intuitively obvious which Naval Academy graduates spent more than perfunctory time on the YPs - they are the most effective ship handlers and confident deck officers, and often qualify at a pace ahead of their peers."²⁵ The sentiment of many classroom SWOs, the necessity for ship handling training is paramount. Maritime simulators in Newport provide students with high fidelity bridge simulation. The elimination of SWOSDOC led to the deprivation of quality simulator time to CBT SWOs. During SWOSDOC, from 1993 to 2003, students were provided practice in the simulator to reinforce classroom-taught standard commands, navigation with nautical charts, ship equipment familiarization, and bridge resource management. The CBT program necessitated that ship handling simulators be established in fleet concentration centers.

Approved in 2003, the Navigation, Seamanship and Shiphandling (NSS) Training Requirements Document, paved a way for simulator installment. After research and development (R&D), extensive system evaluations, contract negotiations, and lessons learned, the Navy is headed on the right course in providing simulators to SWOs in fleet concentration areas. The demand for simulator practice, always present among SWOs of any experience level, forced ships in San Diego, Norfolk, Hawaii, Mayport, and Japan to

send officers to Newport for simulator practice. During R&D between 2003 and 2007. CBT SWOs and classroom SWOs assigned to ships were frequently deprived of practice in simulators due to lack of simulator installations in operational fleet areas. A contract awarded to Kongsberg Maritime in 2007 installed seven shore-based NSS trainers in the fleet concentration areas including Everett, Washington; Mayport, Florida; Pearl Harbor. Hawaii; Sasebo and Yokosuka, Japan; San Diego, California; and Norfolk, Virginia.²⁶ "The new NSS Trainer with state-of-the-art visuals, hardware, and software combined with a more cost-effective multi-site instruction capability, will allow the Navy to dramatically increase the quality and quantity of navigation, seamanship, and shiphandling training available to the Fleet."²⁷ Additionally, there is new technology being implemented on certain test-platform ships that feature small footprint, state-of-theart bridge simulators onboard ships. As a result, the training goes to the SWO instead of the SWO to the training.²⁸ A common emphasis on availability of simulators near ships' homeports is the opinion of many classroom and CBT SWOs alike. Fleet readiness increasingly relies upon synthetic training via simulator programs.

ANALYSIS OF ACCIDENTS AT SEA

An analysis is presented to compare the groups of classroom SWOs to the group of CBT SWOs. Since the elimination of the traditional SWOSDOC in 2003, this research will compare and contrast the two groups for periods of seven years, incorporating surface ship accidents categorized as catastrophic. The goal is to establish any linkage between traditional classroom instruction to self-paced CBT instruction. Does the previous system of education of SWOs have relevance to the number of accidents from January 1996 to January 2003 as compared to that education system from 2003 to today?

The scope is limited to accidents that are classified as groundings and collisions.

According to the Department of Defense Dictionary of Military Terms, the definition of aground is: on or onto the shore, the bottom, [or] a reef.²⁹ A collision is defined as: the act of colliding, or coming together with sudden, violent force.³⁰ As these two accidents are most likely a causality of improper ship handling, they bear relevance to the caliber of training of the ship handlers.

Examining the classroom SWO group from 1996 to 2003, according to the Naval History and Heritage Command's Operational Archives Branch, there were four major collisions in which ships suffered beyond one million dollars in repairable damages. Applying that same measure of damage in the same time period, there were five instances of ships running aground. On October 14, 1996, "during a training exercise the guided missile cruiser LEYTE GULF (CG 55) crashed into the carrier. The collision ripped open the front of the LEYTE GULF and heavily damaged the rear of THEODORE ROOSEVELT. The collision caused \$9 million in damages to the cruiser and \$7 million to the [aircraft] carrier. LEYTE GULF's captain at that time was relieved of command as a result of the incident."³¹

In another collision incident on February 5, 1999, USS ARTHUR W. RADFORD "collided with the SAUDI RIYADH, a 29,259-ton, 656-foot-long, roll-on, roll-off container ship, which was preparing to enter the Chesapeake Bay for Baltimore. USS ARTHUR W. RADFORD sustained an estimated \$32.7 million in damages and the damage prevented [her] from leaving on a scheduled six-month deployment to the Mediterranean Sea." As a result of this collision, the Commanding Officer was relieved.

An incident involving USS LA MOURE COUNTY, "preparing for an amphibious landing, part of an annual [Unión Nacional de Instituciones Para El Trabajo de Acción Social] UNITAS exercise, in the darkness and fog, LA MOURE COUNTY drove ashore on a small rocky island just off the coast [of Chile]. Repairs to "her severely damaged hull and machinery were judged to be uneconomical. It was determined that it was more beneficial for the damaged ship to be used as a target for a live fire Sink Exercise (SINKEX) rather than making costly repairs." 33

Examining CBT SWOs over a seven-year period (2003 to 2010), the Navy has suffered four major accidents; three groundings and one major collision. One of the major incidents made national news.

"USS PORT ROYAL ran aground half a mile off Honolulu International Airport's reef runway and remained stuck for [four] days until a 9-ship armada was able to free the cruiser. The Navy undertook three major efforts to free the PORT ROYAL and achieved success after removing about 600 tons of seawater, anchors and other weight. Damage caused to the PORT ROYAL included cracks in the 8-inch thick rubber sonar dome at the bow and sheared off propellers. The ship was towed back to Pearl Harbor Naval Shipyard for further damage assessment and dry-docking." 34

The Commanding Officer was relieved and the investigation revealed that navigational equipment was faulty, but the accident could have been avoided by the navigation team on the bridge.³⁵

An important factor to realize is that classroom SWOs that are currently serving

in the fleet are more than likely placed in billets that are supervisory roles. SWO Division Officers (DIVO) are the primary ship handlers during their first two tours of duty. Since career progression dictates a SWO to complete two DIVO tours for an average of three and a half years, from January 2003 to April 2010, classroom SWOs will have already completed their two DIVO tours. Over the period of seven years since January 2003, classroom SWOs are not primarily standing Officer of the Deck duties, rather they are standing watch as a Tactical Action Officer in an operational and weapons release role. With a few exceptions depending on differing platforms of ship, CBT SWOs are the primary ship handlers, with guidance from classroom SWOs such as Department Heads and the Executive Officer and the Commanding Officer. Ship handling accidents that can be solely attributed to negligence on the part of the bridge watch teams can, and most times does lead to the Commanding Officer's relief for cause. In some cases, as mentioned above, the Executive Officer and others will receive non-judicial punishment for their negligence.

CONCLUSIONS

The realities of ship handling training requirements are evident. Much like someone aspiring to obtain a license to drive an automobile, so is the SWO aspiring to obtain a license to operate a multi-million dollar warship. The elimination of SWOSDOC has been detrimental to the education of SWO DIVOs. The necessity for practice in a ship handling simulator has and will remain to be a priority throughout the development of SWOs as professional mariners. A myriad of details are now involved in the initial training of SWO Ensigns. The initial cost-cutting concerns for PCS moves and allowing more lateral movement for Commanding Officers to influence the training of new young

SWOs have now posed more leadership, logistical, and administrative problems.

Leadership, a learned attribute through experience, is critical for the success of any new military officer, regardless of service branch. There is no doubt that leadership lessons will be learned along the way of a SWO's career. However, to introduce an officer to a new challenging career with little or no foundation in basic leadership skills is not a lucrative business. Navy Officers and crews are experiencing hardships due to SWOSDOC elimination.

1 http://www1.netc.navy.mil/swos/

³ Winkler, J. D. and Steinberg, P. S., "Restructuring Military Education and Training, Lessons from RAND Research". RAND Corperation, Santa Monica, CA, 1997.

9 http://nrotc.gatech.edu/training.php

- ¹¹ See for example, "Building the Next Nelson" and "Emphasize Tactical Training!"
- ¹² Davis, Stephen. F., Jr., "Building the Next Nelson". United States Naval Institute. Proceedings. Annapolis: Jan 2007. Vol. 133, Iss. 1; pg. 1.
- ¹³ Davis, Stephen. F., Jr., "Building the Next Nelson". United States Naval Institute. Proceedings. Annapolis: Jan 2007. Vol. 133, Iss. 1; pg. 1.
- ¹⁴ Eyer, Kevin S. J., "On the Care and Feeding of Young SWOs". United States Naval Institute. Proceedings. Annapolis: Jan 2009. Vol. 135, Iss. 1; pg. 51, 4 pgs.
- ¹⁵ Eyer, Kevin S. J., "On the Care and Feeding of Young SWOs". United States Naval Institute. Proceedings. Annapolis: Jan 2009. Vol. 135, Iss. 1; pg. 51, 4 pgs.
- ¹⁶ McDermott, Padraic H., "Leading Surface Warfare Officers Straight-to-the-Fleet". United States Naval Institute. Proceedings. Annapolis: Jan 2009. Vol. 135, Iss. 1; pg. 62, 5 pgs.
- ¹⁷ McDermott, Padraic H., "Leading Surface Warfare Officers Straight-to-the-Fleet". United States Naval Institute. Proceedings. Annapolis: Jan 2009. Vol. 135, Iss. 1; pg. 62, 5 pgs.
- ¹⁸ Davis, Stephen. F., Jr., "Building the Next Nelson". United States Naval Institute. Proceedings. Annapolis: Jan 2007. Vol. 133, Iss. 1; pg. 1.
- ¹⁹ Interview with Active Duty Lieutenant Commander, post-Department Head, Surface Warfare Officer, March 17, 2010.
- ²⁰ Interview with Active Duty Lieutenant Commander, post-Department Head, Surface Warfare Officer, March 23, 2010.
- ²¹ Davis, Stephen. F., Jr., "Building the Next Nelson". United States Naval Institute. Proceedings. Annapolis: Jan 2007. Vol. 133, Iss. 1; pg. 1.

²² http://www.usna.com/Document.Doc?id=1256

² Chief of Naval Education and Training, "Professional Core Competencies (PCCs) Manual for Officer Accession Programs". Chief of Naval Education and Training, Pensacola, Florida, April 2001.

⁴ Gavino, C. C., "Cost Effectiveness Analysis of the "Sea to SWOS" Training Initiative on the Surface Warfare Officer Qualification Process". Master's thesis, Naval Postgraduate School, Monterey, CA, December 2002.

⁵ Davis, Stephen. F., Jr., "Building the Next Nelson". United States Naval Institute. Proceedings. Annapolis: Jan 2007. Vol. 133, Iss. 1; pg. 1.

⁶ http://www.usna.edu.midlife.htm

⁷ http://www.usna.edu.midlife.htm

⁸ http://www.globalsecurity.org/military/library/news/2005/03/mil-050323-nns01.htm

¹⁰ http://www.navy.mil/search/display.asp?story_id=31594

²³ http://www.navytimes.com/news/2008/07/navy_swos_071908w/

²⁴ Nesselrode, Mark, "Listen to the Lieutenants and Sailors". United States Naval Institute. Proceedings. Annapolis: Jun 2007. Vol. 133, Iss. 6; pg. 68, 2 pgs.

²⁵ Davis, Stephen. F., Jr., "Building the Next Nelson". United States Naval Institute. Proceedings. Annapolis: Jan 2007. Vol. 133, Iss. 1; pg. 1.

²⁶ Shannon, James J., Johnson, William, and Thoms-Rizzo, Rene, "A New Era of Realistic, Practical Training". United States Naval Institute. Proceedings. Annapolis: Jan 2007. Vol. 133, Iss. 1; pg. 46, 4 pgs.

27 Shannon, James J., Johnson, William, and Thoms-Rizzo, Rene, "A New Era of

Realistic, Practical Training". United States Naval Institute. Proceedings. Annapolis: Jan

2007. Vol. 133, Iss. 1; pg. 46, 4 pgs.

- ²⁸ Shannon, James J., Johnson, William, and Thoms-Rizzo, Rene, "A New Era of Realistic, Practical Training". United States Naval Institute. Proceedings. Annapolis: Jan 2007. Vol. 133, Iss. 1; pg. 46, 4 pgs.
- ²⁹ http://www.dtic.mil/doctrine/dod_dictionary/
- 30 http://www.dtic.mil/doctrine/dod_dictionary/
- 31 http://navysite.de/cg/cg55.html
- 32 http://www.navysite.de/dd/dd968.htm
- 33 http://www.navysite.de/lst/lst1194.htm
- 34 http://www.navysite.de/cg/cg73.html
- 35 http://www.navy.mil/search/display.asp?story id=42502

LIST OF REFERENCES

- 1. McDermott, Padraic H., "Leading Surface Warfare Officers Straight-to-the-Fleet". United States Naval Institute. Proceedings. Annapolis: Jan 2009. Vol. 135, Iss. 1; pg. 62, 5 pgs.
- 2. Ficarotta, Carl J., "Military Ethics: Some Lessons Learned From Manuel Davenport". Air & Space Power Journal. Maxwell AFB: Winter 2006. Vol. 20, Iss. 4; pg. 91, 9 pgs.
- 3. Hindinger, John R., "Emphasize Tactical Training!" United States Naval Institute. Proceedings. Annapolis: Oct 1997. Vol. 123, Iss. 10; pg. 38, 2 pgs.
- 4. Price, Heather M. and Price, Douglas C., "A Heavy Concentration on Nautical Knowledge". Sea Power. Washington: May 1999. Vol. 42, Iss. 5; pg. 31, 8 pgs.
- 5. Peterson, Gordon. "No Better Time to be a Surface Warfare Officer". Sea Power. Washington: Mar 2000. Vol. 43, Iss. 3; pg. 7, 6 pgs.
- 6. Anonymous. "The Fall and Rise of Naval Forward Presence". United States Naval Institute. Proceedings. Annapolis: Jul 2000. Vol. 126, Iss. 7; pg. 22, 2 pgs.
- 7. Peterson, Gordon I., Sea Power. Washington: Feb 2001. Vol. 44, Iss. 2; pg. 41, 3 pgs.
- 8. Winkler, John W., "Virtual Reality Will Never Replace Live-fire Training". United States Naval Institute. Proceedings. Annapolis: Mar 2003. Vol. 129, Iss. 3; pg. 128.
- 9. Faller, Craig, United States Naval Institute. Proceedings. Annapolis: Mar 2003. Vol. 129, Iss. 3; pg. 104.
- 10. Graham, Janice M. and Willis, T. Lamar, "A Bold Course to a New Naval Service". United States Naval Institute. Proceedings. Annapolis: Sep 2003. Vol. 129, Iss. 9; pg. 62.
- 11. Donahoe, Patrick J., "Navy Culture and Military Education". United States Naval Institute. Proceedings. Annapolis: Jul 2005. Vol. 131, Iss. 7; pg. 50, 4 pgs.
- 12. Shannon, James J., Johnson, William, and Thoms-Rizzo, Rene, "A New Era of Realistic, Practical Training". United States Naval Institute. Proceedings. Annapolis: Jan 2007. Vol. 133, Iss. 1; pg. 46, 4 pgs.
- 13. Nesselrode, Mark, "Listen to the Lieutenants and Sailors". United States Naval Institute. Proceedings. Annapolis: Jun 2007. Vol. 133, Iss. 6; pg. 68, 2 pgs.
- 14. Eyer, Kevin S. J., "On the Care and Feeding of Young SWOs". United States Naval Institute. Proceedings. Annapolis: Jan 2009. Vol. 135, Iss. 1; pg. 51, 4 pgs.

- 15. Welle, Joshua W., "Inland Sailors". United States Naval Institute. Proceedings. Annapolis: Jan 2009. Vol. 135, Iss. 1; pg. 20, 6 pgs.
- 16. Jones, Scott and Howell, Phil, "SWO School Tunes Up". United States Naval Institute. Proceedings. Annapolis: Jan 2010. Vol. 136, Iss. 1; pg. 32, 5 pgs.
- 17. Vego, Milan, "Finding Our Balance at Sea". United States Naval Institute. Proceedings. Annapolis: Jan 2010. Vol. 136, Iss. 1; pg. 22, 5 pgs.
- 18. Crockett, Michael L., "SWOs Should Be Specialists, Not Generalists". United States Naval Institute. Proceedings. Annapolis: Aug 2002. Vol. 128, Iss. 8; pg. 82.
- 19. Little, Michael W., "Cease Fire on SWOS!". United States Naval Institute. Proceedings. Annapolis: Feb 1999. Vol. 125, Iss. 2; pg. 178.
- 20. Dillender, Mike, Pattie, Marshall, Rohrer, Allison, Shaw, Angela, "Give Surface Officers a New Option". United States Naval Institute. Proceedings. Annapolis: Oct 2002. Vol. 128, Iss. 10; pg. 46.
- 21. Nolan, J. F., "An Analysis of Surface Warfare Officer Measures of Effectiveness as Related to Commissioning Source, Undergraduate Education, and Navy Training". Master's thesis, Naval Postgraduate School, Monterey, CA, March 1993.
- 22. Strano, M. A., "A Comparison of the Marginal Cost of Commissioning Officers Through the U. S. Naval Academy, Naval Reserve Officers Training Corps, And Officer Candidate School". Master's thesis, Naval Postgraduate School, Monterey, CA, December 1990.
- 23. Foster, M. F., "An Analysis of the Relative Productivity of Officers from Different Accession Sources". Master's thesis, Naval Postgraduate School, Monterey, CA, June 1990.
- 24. Duffy, J. C., "A Statistical Analysis of Retention in the Surface Warfare Community". Master's thesis, Naval Postgraduate School, Monterey, CA, June 2000.
- 25. Gremillion, J. D., "Undergraduate Academic Achievement as an Indicator of Fleet Performance and Retention". Master's thesis, Naval Postgraduate School, Monterey, CA, August 1998.
- 26. Chapman, D. S., "The Performance of Naval Reserve Officers Training Corps Graduates at the Surface Warfare Officers School Division Officer Course". Master's thesis, Naval Postgraduate School, Monterey, CA, September 1992.
- 27. Bautista, G. E., "Surface Warfare Junior Officer Separation: Does Ship Type Make a Difference?". Master's thesis, Naval Postgraduate School, Monterey, CA, March 1996.

- 28. Bernard, J. P., "An Analysis of Alternate Accession Sources for Naval Officers". Master's thesis, Naval Postgraduate School, Monterey, CA, March 2002.
- 29. Gavino, C. C., "Cost Effectiveness Analysis of the "Sea to SWOS" Training Initiative on the Surface Warfare Officer Qualification Process". Master's thesis, Naval Postgraduate School, Monterey, CA, December 2002.
- 30. Heidt, E. A. and Zajkowski, M. M., "An Assessment of Naval ROTC Graduate Performance in Post Accession Training(Technical Report No. 131)". Training Analysis and Evaluation Group, Orlando, FL, 1982.
- 31. Bowman, W., "Cost-Effectiveness of Service Academies: New Evidence from Navy Warfare Communities". USNA Office of Institutional Research, Annapolis, MD, June 1995.
- 32. Yardley, R., "Use of simulation for training in the U.S. Navy surface force". RAND Corporation, Santa Monica, CA, 2003.
- 33. Winkler, J. D. and Steinberg, P. S., "Restructuring Military Education and Training, Lessons from RAND Research". RAND Corperation, Santa Monica, CA, 1997.
- 34. Forcier, R. C., "The Computer as a Productivity Tool in Education". Prentice-Hall Inc., Englewood Cliffs, NJ, 1996
- 35. Seidel, R. J. and Weddle, P. D., "Computer-Based Instruction in Military Environments". Plenum Press, New York, NY, 1987.
- 36. Seventy-Ninth Congress Committee on Naval Affairs. "Hearings Before the Committee on Naval Affairs of the House of Representatives on Sundry Legislation Affecting the Naval Establishment". U.S. Government Printing Office, Washington, D.C., 1946.
- 37. Barron's Educational Series, Inc., "Barron's Profiles of American Colleges, 2003". Barron's Educational Series, Inc., New York, NY, 2003.
- 38. Chief of Naval Education and Training, "Professional Core Competencies (PCCs) Manual for Officer Accession Programs". Chief of Naval Education and Training, Pensacola, Florida, April 2001.